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ACCESSION NBR:9306220281 DOC.DATE: 93/06/16 NOTARIZED: NO DOCKET #
FACIL:50-400 Shearon Harris Nuclear Power Plant, Unit 1, Carolina 05000400
AUTH.NAME AUTHOR AFFILIATION
VERILLI,M. Carolina Power & Light Co.
ROBINSON,W.R. Carolina Power & Light Co.
RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 93-006-00:on 930517,automatic sampling device did not function during release of secondary waste sample tank due to failure in units electronic counter.Counter replaced w/modified model.W/930615 ltr.

DISTRIBUTION CODE: IE22T COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 4
TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

NOTES:Application for permit renewal filed. 05000400

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Carolina Power & Light Company

HARRIS NUCLEAR PLANT

P.O. Box 165

New Hill, North Carolina 27562

Company Correspondence

JUN 15 1993

Letter Number: HO-930108

U.S. Nuclear Regulatory Commission
ATTN: NRC Document Control Desk
Washington, DC 20555

SHEARON HARRIS NUCLEAR POWER PLANT UNIT 1
DOCKET NO. 50-400
LICENSE NO. NPF-63
LICENSEE EVENT REPORT 93-006-00

Gentlemen:

In accordance with Title 10 to the Code of Federal Regulations, the enclosed Licensee Event Report is submitted. This report fulfills the requirement for a written report within thirty (30) days of a reportable occurrence and is in accordance with the format set forth in NUREG-1022, September 1983.

Very truly yours,

W. R. Robinson
General Manager
Harris Nuclear Plant

MV:cls

Enclosure

cc: Mr. S. D. Ebnetter (NRC - RII)
Mr. N. B. Le (NRC - PM/NRR)
Mr. J. E. Tedrow (NRC - SHNPP)
Mr. G. E. Vaughn

210107

MEM/LER93-006/1/OS1

9306220281 930616
PDR ADDCK 05000400
S PDR



LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) Shearon Harris Nuclear Plant-Unit #1

DOCKET NUMBER (2)
05000/400

PAGE (3)
1 OF 3

TITLE (4) Automatic sampling device did not function during release of the Secondary Waste Sample Tank, resulting in a Technical Specification surveillance violation.

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
5	17	93	93	-- 006 --	00	6	16	93	FACILITY NAME	DOCKET NUMBER 05000
									FACILITY NAME	DOCKET NUMBER 05000

OPERATING MODE (9)	POWER LEVEL (10)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)																	
1	100	20.402(b)	20.405(a)(1)(i)	20.405(a)(1)(ii)	20.405(a)(1)(iii)	20.405(a)(1)(iv)	20.405(a)(1)(v)	20.405(c)	50.36(c)(1)	50.36(c)(2)	50.73(a)(2)(iv)	50.73(a)(2)(v)	50.73(a)(2)(vii)	50.73(a)(2)(viii)(A)	50.73(a)(2)(viii)(B)	50.73(a)(2)(x)	73.71(b)	73.71(c)	OTHER
					X														(Specify in Abstract below and in Text, NRC Form 366A)

LICENSEE CONTACT FOR THIS LER (12)

NAME Michael Verrilli	TELEPHONE NUMBER (Include Area Code) (919) 362-2303
--------------------------	--

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS
B	KN	FIC	B415	Y					

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE).	X	NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
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ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On May 17 and May 31, 1993, during the performance of weekly operability checks, problems were discovered with the automatic sampling device on the Secondary Waste Sample Tank (SWST) effluent line. On both dates, it was determined that this sampler had not functioned as required during releases from the SWST. Technical Specifications (TS) require continuous sampling of this effluent stream while releases are in progress, to provide a weekly radioactivity composite. This composite sample is used as a backup to the normal radiation monitor and due to the fact that the monitor was in service during each SWST release, analysis of this sample water is not required. In both instances the release line up was immediately secured and the effluent stream was verified to have no detectable radioactivity levels.

The sampling device malfunctions were caused by a failure in the units electronic counter. Corrective actions included replacing this counter with a modified model and ensuring that similar discrepancies do not exist in other automatic samplers.

This condition constitutes a TS violation and is being reported per 10CFR 50.73(a)(2)(i)(B).

LICENSEE EVENT REPORT (LER)

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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Shearon Harris Nuclear Plant Unit #1	05000/400	93	006	00	2 OF 3

TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

EVENT DESCRIPTION:

On May 17, 1993 plant Chemistry personnel were performing the weekly operability check for the Bristol automatic sampling unit on the Secondary Waste Sample Tank (SWST) effluent line. During this process they determined that the unit had not drawn an adequate amount of water from the effluent stream of the SWST, while a release of it's contents was in progress. Technical Specification (TS) #4.11.1.1.1 requires samples to be continuously collected that are representative of the quantities and concentrations of radioactive materials in the release stream. The operability check revealed that only 50 cc's of sample water had been collected while the normal amount for the weekly composite is approximately 6 liters. Immediately upon this realization, Radwaste Operations was notified and the SWST release line up was secured. The in-line radiation monitor for this effluent stream was operable during the SWST releases and indicated that no detectable levels of radioactivity existed. Based on the fact the radiation monitor was in service during the releases, analysis of this sample water is not required by TS.

Investigation and troubleshooting revealed that the sampling unit had malfunctioned due to a failure in it's electronic counter. This device has a back up battery power supply that ensures the sample timing frequency signal is not lost during momentary power failures. The battery is enabled by a dip switch and this dip switch was found in the "off" position. Chemistry and Technical Support personnel initially determined that a momentary power fluctuation had occurred, causing the frequency signal to be lost due to the mispositioned dip switch. The dip switch was placed in the correct position and after additional inspections and testing revealed proper operation of the counter, the automatic sampler was placed back in service.

On May 31, 1993, the results of the weekly operability check again revealed that adequate sample water had not been drawn from the effluent stream during the previous week. Radwaste Operations immediately secured the SWST release. Following the repeat failure, management prohibited the use of this sampling unit to satisfy TS requirements until the cause of the malfunctions could be positively identified and corrected.

CAUSE:

Following the second failure, additional investigation and consultation with the vendor determined that the most probable cause of the sampling device failures was inadequate surge protection in the counter power supply. Without recent vendor supplied surge protection modifications, voltage fluctuations could cause a loss of the sample timing frequency signal, regardless of the position of the back up battery dip switch.

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Shearon Harris Nuclear Plant Unit #1	05000/400	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	3 OF 3
		93	006	00	

TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

SAFETY SIGNIFICANCE:

There were no significant safety consequences as a result of this event. The in-line radiation monitor for the SWST effluent stream was operable during each of the daily releases and detected no abnormal levels of radioactivity.

One similar event regarding the failure to obtain a composite sample was reported via LER #91-017 in September 1991. However, that event was caused by personnel error, not component failure as in this case.

CORRECTIVE ACTIONS:

1. A replacement automatic sampling device was modified and installed to ensure adequate surge protection is available in the counter power supply.
2. Test procedures will be developed to more thoroughly test/calibrate the operation of installed composite sampling units.

EIIS INFORMATION:

Sampling Systems - KN

